

Lectotypes for Brown's Flora of Southeastern

Polynesia

Harold St. John

(Bishop Museum, Honolulu, Hawaii, 96818, USA.)

During 1921 and 1922 Forest Buffum Harkness Brown and his wife Elizabeth Dorothy Wuist Brown, in the interests of the Bishop Museum, made botanical explorations in southeastern Polynesia. Their main object was the Marquesas Islands and they spent 17 months there. Three weeks were spent visiting 18 of the atolls in the Tuamotu Archipelago, and stops en route were also made in the Cook Islands and on Tahiti.

Based on their own collections and on other specimens in the Bishop Museum, they produced their Flora of Southeastern Polynesia. It was issued by the Bishop Museum in three parts. Bulletin 89, by Elizabeth D. W. Brown and Forest B. H. Brown, published in 1931, dealt with the Pteridophyta. Bulletin 84 by F. B. H. Brown, published in 1931, covered the Monocotyledons. Bulletin 130, by F. B. H. Brown, published in 1935, included the Dicotyledons. Together they form a flora, the first such covering the Marquesas, the Austral Islands, Rapa, the Tuamotu Archipelago, Mangareva, Pitcairn, and Henderson Islands.

Though the part dealing with the ferns has the two Browns as joint authors, the writer remembers that it was written almost wholly by Mrs. Brown, and all of the novelties in it are credited to her alone. In her bulletin there is only one ambiguity in typification, that in Lycopodium Henryanum which has two types. She also cooperated in the study and in the writing of the other two parts, but insisted that her husband should be the sole author of them when published.

The present article is a revision of the typification of the novelties published in the three bulletins. When treating an older species

or taxon, then the Browns invariably indicated a sort of a type. They called it the reference type, if several, all were reference types. If describing a new species or taxon, they usually listed one or more collections as the type; and additional collections as reference types. Occasionally, as with Cyrtandra nukuhivensis; Serianthes myriadenia Planch., var. rurutensis F. Br.; Vaccinium rapae F. Br.; and Alyxia stellata (J. R. & G. Forst.) R. & S., form magnacarpa F. Br., Brown listed a single collection, but called it a reference type. This causes no complication, as it is automatically the holotype. These reference types were the unique invention of the Browns, and they are not a part of any international system of plant nomenclature. In practice, any specimen that the Browns looked at and cited as of a particular species, they listed as a reference type. These have no legal status and no importance, being merely the specimens that they looked at. In the two bulletins by F. Brown, there are numerous ambiguities in typification. In the present article, the writer selects lectotypes for those species and varieties needing them; and in a few instances gives the reference to such a choice by some other botanist.

Bull. 89:

p. 107. Lycopodium Henryanum E. Br. Two specimens were cited as types. The fertile and better one, Hivaoa, Brown 1,092, is here chosen as lectotype.

Bull. 84:

p. 61-62. Pennisetum Simeonis F. Br. For this species no specimens were cited. No specimens of it labelled by Brown are in the Bishop Museum. Under the species, Brown published three named varieties, each with a description and a type specimen. It is deduced that he described the species as a group concept to include the three varieties. The wording of the specific description is more general, and includes all, rather than coinciding with the description of any of the three varieties. The species is valid, but if correctly interpreted, one of the varieties should become var. Simeonis. The var.

intermedium F. Br. was based on the collection by Pere Simeon Delmas, from Nukuhiva. It is complete, having culms, leaves, and flowers. It is here chosen as the lectotype of the variety and the species. The variety now becomes var. Simeonis.

p. 66. Cenchrus echinatus L., var. glabratus F. Br. It has several reference types, but in the Bishop Museum Nukuhiva, F. Brown 745 is marked type. It is here made the lectotype. DeLisle in his monograph of the genus reduces this variety to the synonymy of the species (Iowa State Journ. Sci. 37: 283, 1963).

Bull. 130:

p. 21-22. Peperomia rapensis F. Br. For this Brown cited two collections from Rapa and one from Rurutu, all called reference types. Of the two from Rapa, Quayle 344 is the best specimen and is fertile. Brown marked it type. It is here chosen as lectotype.

p. 29. Celtis paniculata Planch. var. rapensis F. Br. It was based on two collections from Rapa, Stokes 35 and 403. There are several sheets of each number. Stokes 35 is here chosen as the lectotype.

p. 39. Ficus marquesensis F. Br. For this Brown cited Nukuhiva, Brown 420 as the type of the floral and wood descriptions. Brown 480 is a cotype, and there are several other reference types. Brown 420 from Nukuhiva, with branches and flowers, is here chosen as lectotype. This species was reduced by Corner to the synonymy of F. prolixa Forst. f., var. subcordata Corner, (see Gardens' Bull. 21: 10, 1965.).

p. 54. Pipturus incanus (Bl.) Wedd., var. tuamotensis F. Br. Brown cites Jones 906, and 2,186 as types. The no. 2,186 from Rangiroa is here made the lectotype.

p. 66. Santalum hendersonense F. Br. No specimen was cited. A lectotype was designated, Henderson, Quayle (BISH), by St. John & Philipson (R. Soc. New Zealand, Bot. Trans. 1: 180, 1962).

p. 139. Phyllanthus pacificus Muell., var. uahukensis F. Br. Two collections were cited as types: Uahuka, Quayle 1,781, and Hivaoa, Mumford

& Adamson 488. The latter, no. 488, is here chosen as lectotype.

p. 142, 144. Glochidion marchionicum F. Br. This was based on Nukuhiva, Quayle 1,344, first type sheet, and Quayle 1,689, second type sheet. The latter, no. 1,689, is better material, and is here chosen as lectotype.

p. p. 155-157. Ilex marquesensis F. Br. He cited four collections. The first two, Quayle 1,308, and 1,259 he called types. In the Bishop Museum Brown marked 1,308 as type, while 1,259 was marked as fruit type. No. 1,308 is flowering and more ample, and is here chosen as lectotype.

p. 175-176. Hibiscus tiliaceus L., var. sterilis F. Br. Brown cited no specimens of this. However, he deposited several numbers of it. The following one he marked type: Fatuhiva, Omoa, Brown 908. This one is here chosen as lectotype.

p. 199. Metrosideros collina (J. R. & G. Forst.) Gray, var. nukuhivensis F. Br., based on Quayle nos. 1,254, and 1,263, type sheets. Both sheets have herbage and flowers, but 1,263 was marked type, and 1,254 as second type. The latter, no. 1,254 is a much better specimen, so it is here chosen as the lectotype.

p. 199-200. var. toviana. F. Br. It was based on Nukuhiva, Brown 474, and Quayle 1,262. Brown 474 was marked type. It is a good flowering specimen, so it is here made the lectotype.

p. 207. Cheirodendron marquesense F. Br. Brown cited two types, Brown 878, and Quayle 1,334. The latter, no. 1,334, is abundant and more mature, so it is here chosen as lectotype.

p. 209. Reynoldsia marchionensis F. Br. It was based on the ~~two~~ types, Hivaoa, Brown 871, and Fatuhiva, Brown 893. In the herbarium he marked 871 as type, and 893 as type second sheet. The two are equally good specimens, but no 871 is chosen as lectotype.

p. 214. Lautea Collettei (Riley) F. Br. comb. nov. Synonym, Lautea Stokesiana F. Br., B. P. Bishop Mus., Bull. 52: 6, 1928, and var. primaeva F. Br., B. P. Bishop Mus., Bull. 130: 214, 1935. Brown cited neither type nor specimens for his L. Stokesiana, as he was evidently using

the aggregate concept of a species with varieties. On page 7, under his var. primaeva, he cited Stokes 367, Rapa, Bishop Museum, "type of the genus." Hence, var. primaeva was the typical variety, and it must now be called var. Collenettei.

As Brown indicated (1928: 8), the holotype of var. denticulata (F. Br.) F. Br. is Rapa, A. M. Stokes 37 (BISH). The holotype of var. integri-
folia (F. Br.) F. Br. is Rapa, Stokes 348 (BISH).

p. 214. Lautea serrata F. Br., B. P. Bishop Mus., Bull. 52: 8, 1928, has the holotype, Rapa, Stokes 57 (BISH).

p. 216-217. Vaccinium rapae F. Br. He listed Stokes 83 as the reference type, but as it is the only one listed, it is a holotype.

p. 218. Styphelia Tameiameiae (Cham.) Müller, form marquesensis F. Br. He cited only Nukuhiva, Brown 533A as a reference type, so it is a holotype. Sleumer reduced it to the species in Blumea 12: 161, 1963.

p. 219-220. Rapanea = Myrsine. Brown's several taxa have been typified by Fosberg & Sacht, in Smithsonian Contrib. Bot. 21: 4-10, 1975.

p. 230. Alyxia stellata (J. R. & G. Forst.) R. & S., form marquesensis F. Br. This was based on four collections, all called reference types. One of them, F. Brown 932, has been removed and made the holotype of var. fatuhivensis Fosb. & Sacht, in Micronesica 10: 254, 1974. They made a valid new taxon, but ^{did} not mention the need of a lectotype for the older one. Of the three remaining specimens, Quayle, 721, from Uahuka, Nov. 9, 1922 (BISH), is the best specimen, with ample herbage and with fruit. It is here chosen as lectotype.

p. 231. forma rapensis F. Br. This was based upon four reference types, and it needs a lectotype. However, the specimens are out on loan to Fosberg, who may make a lectotype.

p. 299. Plectronia kohenua F. Br., var. typica F. Br. This was based on three collections, all published as types of floral characters. These three specimens were all marked type by Brown. No. 898, Nukuhiva, is a good flowering collection, present as three sheets. One of them is here

chosen as the lectotype. This species was reduced to the synonymy of Canthium odoratum (Forst. f.) Seem. by Fosberg (Bishop Mus., Occas. Papers 13: 255, 1937).

p. 305. Ixora Stokesii F. Br. This species was accepted by Fosberg (Bishop Mus., Occas. Papers 13: 274, 1937). It was based upon two collections which Brown called the types. The specimen, Stokes 320, from Maitua, Rapa, is the better and more complete specimen. It is here chosen as the lectotype.

p. 323-325. Cyrtandeoidea Jonesii F. Br. This was accepted in the Campanulaceae with some doubt by E. Wimmer (Pflanzenreich IV, 276b: 104, fig. 26, 1957). Then Burtt (R. Bot. Gard. Edinb., Notes 28: 217-218, 1968) transferred the genus to the Gesneriaceae. G. W. Gillett made it Cyrtandra jonesii (F. Br.) Gillett (Univ. Calif., Publ. Bot. 66: 55, 57, fig. 9, 1973). It has regular flowers with 4-5 fertile stamens, but so, he says, does C. todaiensis of the Caroline Islands. The writer inclines to agree with Burtt's placement. The species was based upon two collections, both called types. The better specimen is Jones 1,712 from Uahuka (BISH). It is here chosen as the lectotype.

p. 359. Campylotheca uapensis F. Br. This was transferred and made Bidens uapensis (F. Br.) Sherff (Field Mus., Bot. Ser. 16: 115, 1937). This was based by Brown upon two collections which he called the types. Sherff (p. 115) listed Quayle 1,149 as the type, or as we would now say the lectotype.

p. 366, 368. Fitchia rapensis F. Br., var. typica F. Br. This was based on Stokes 25, first sheet, and Stokes 387, second type sheet. Carlquist in his monograph (Univ. Calif., Publ. Bot. 29: 62, 1957) merely repeats this statement. Both specimens are sterile, but of equal value. Stokes 25, Orangi, Rapa, is here chosen as lectotype.